

REMARKS

The Office examined claims 1-18 and rejected same. With this paper, the claims are unchanged.

Rejections under 35 USC §102

At section 2 of the Office action, claims 1, 4, 14 and 16-18 are rejected under 35 USC §102 as being anticipated by Yanagihara *et al.* (U.S. Pub. 2003/0152032).

The independent claims are 1, 14, and 16-18.

Claim 1 is to a method including a step in which a sender transmits segments at a rate of transmission and increases the rate of transmission based on feedback the sender receives from the receiver, and also includes a step in which the sender receives a message including one or more bits set to convey an indication of low congestion, and a step in which, in response to the indication of low congestion, the sender increases the data transmission rate so as to achieve increased throughput. Thus, in the method recited in claim 1, the sender responds to feedback from the receiver provided by the receiver in the way of one or more bits set to convey an indication of low congestion, i.e. set to signal low congestion, and then, in response to receiving such feedback, increases the data transmission rate.

Applicant respectfully submits that in contrast Yanagihara discloses a sender side transmitting packets to a receiver side over a network. The sender side includes a camera 11, a real-time encoder 12, and a transmission control section 13. The receiver side includes a reception control section 14, a real-time encoder 15, and a reproduction and display section 16. The transmission control section 13 receives from the reception control section 14 a RR (receiver report) packet (see Fig. 5) that includes information the transmission control section uses

to determine what if any congestion is present, using an algorithm illustrated in Fig. 7. The algorithm takes into account network jitter and packet loss rate provided by the RR packet. The transmission control section may then command the real-time encoder 14, also part of the sender side, to increase or decrease the transmission bit rate, depending on what it determines to be the level of congestion along the communication path to the receiver side. As explained at par. [0051]:

The transmission bit rate of the real-time encoder 12 is designated based on bit rate feedback information from the transmission control section 13. The video data encoded and compressed by the real-time encoder 12 at the designated transmission bit rate, is packetized by the transmission control section 13 in the units of frames or slices which can be re-synchronized and decoded from their respective position even if packet loss occurs, and then transmitted to the network 10. [Emphasis added.]

As explained at par. [0081]:

The transmission control section 13 which has received the RR packet transmitted from the reception control section 14 on the receiver side, determines the congestion state of the network based on the packet loss rate and the jitter information which represents a propagation delay fluctuation that are included in the RR packet, and decides a transmission bit rate capable of avoiding the congestion using the determination result. This transmission bit rate is fed back, as bit rate feedback information, to the real-time encoder 12, whereby the encoding bit rate of the real-time encoder 12 is controlled. [Emphasis added.]

Thus, the transmission control section determines congestion based on packet loss rate and jitter information in the RR packet. There are no bits set to convey an indication of low congestion in the RR packet. The receiver side does not determine the congestion level, the sender side does. The receiver side provides information of use to the sender side in determining congestion, but it is the sender side that actually then determines congestion. And there are never, in any communication between either the sender side or the receiver side, or even between individual components of the sender side

(or even between individual components of the receiver side), bits set to convey an indication of low congestion, in contrast to what is recited in claim 1. Instead, there is a RR report conveying jitter and loss rate information sent from the receiver side to the sender side, and a bit-rate feedback information signal (indicated in Fig. 1a) from the transmission control section to the real-time encoder, designating the transmission bit rate to be used by the real-time encoder (see fourth sentence, par. [0051], and see par. [0081]), i.e. the rate at which payload data is to be provided by the real-time encoder to the transmission control section for packetizing and transmitting to the sender side. Even though the transmission control section determines a state of congestion (indicated as state_cong in Figs. 7 and 8), the state of congestion is never communicated to any other entity on either the receiver side or sender side, but is instead used only at decision block 29 in Fig. 7.

The same argument applies to claims 14 and 16. The portion of the argument in respect to transmitting a message including one or more bits set to convey an indication of low congestion applies also to claim 18.

Accordingly, applicant respectfully requests that the rejections under 35 USC §102 of claims 1, 14, and 16-18 be reconsidered and withdrawn, and also the rejection of claim 4, in view of its depending from claim 1.

Rejections under 35 USC §103

At section 4 of the Office action, claims 2 and 5-8 are rejected under 35 USC §103 as being unpatentable over Yanagihara.

In view of the dependencies of claims 2 and 5-8, and because the claims from which these depend are believed allowable for the

reasons given above, applicant respectfully requests that the rejections under 35 USC §103 be reconsidered and withdrawn.

Conclusion

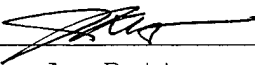
For all the foregoing reasons it is believed that all of the claims of the application are in condition for allowance and their passage to issue is earnestly solicited. Applicant's attorney urges the Examiner to call to discuss the present response if anything in the present response is unclear or unpersuasive.

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Date

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